

# Low-code and No-code AR Solution Benchmarking

Many companies have a greater demand for bespoke AR experiences than qualified software engineering teams to build/develop and test them. Outsourcing can introduce new challenges so alternatives to SDK-based AR application development (e.g., Unity or Unreal) may be suitable for certain projects. Low-code and no-code AR content authoring platforms are designed to enable non-technical subject-matter experts (who are not also AR experience designers) to create new AR experiences. These authoring platforms and environments differ in features and deployment options.

Executive Summary: The objective of this project is to evaluate the features, pricing and scope of at least four low-code and no-code AR content authoring platforms designed for enterprise use cases, enabling AREA members to make better-informed decisions.

Categories: Tool Assessments/Comparisons and Interoperability/Standards

## Problem statement

- The rise in demand for AR experiences in industrial and manufacturing settings has led to an increased demand for accelerated development of AR content and growing need for engagement from non-technical stakeholders.
- Low-code and no-code content authoring tools seek to permit non-technical users to quickly develop and deploy AR content at an enterprise scale, decreasing enterprise reliance on large, highly-specialized software development departments for end-to-end AR application development.

## Desired outcomes of the research project/problem resolution

Successful completion of this project will result in the following benefit for AREA members:

- AREA members will be better informed about the features, options and strategies of at least four low-code and no-code AR content authoring tools, permitting more rapid evaluation of low-code or no-code authoring tool choices.
- Improve or offer an alternative to engineering and/or deployment workflows within enterprise AR content deployment.
- Engage and inform non-technical employees with information on how they can author, or contribute to, AR content creation.

## Technologies of interest/focus (Bullet list)

Possible technologies to include in the study may include, but are not limited to:

- Vuforia Studio
- Microsoft Power Apps
- Microsoft Dynamics 365 Guides

- Adobe Aero
- Apple Reality Composer
- AR-capable devices such as HoloLens, Magic Leap, Meta Quest, Apple Vision Pro, iPhone/iPad, Android devices.

### Inputs

The following inputs will be valuable for the successful completion of this project:

- Access to and use of at least 4 low-code and no-code content authoring tools that allow for enterprise-ready AR content authoring and deployment.
- 3D models for evaluation in various software tools and in AR.
- Example assembly and/or work instruction procedures for use in AR content authoring tool and in AR deployments.
- AREA member interviews identifying low-code or no-code authoring tools they are using or have evaluated, or have an interest in assessing.

### Deliverables

Successful completion of this project will result in the following deliverables:

- A detailed report comparing low-code and no-code AR content authoring solutions and features for industrial use cases, as well as their deployed AR outputs. The report should include images of module or node structures used in the evaluation.
- A detailed comparison matrix outlining AR content authoring features from the perspective of non-technical/non-programmer users.
- Interactive or multimedia content such as detailed comparison videos or running apps demonstrating observable differences in selected content authoring tools.
- Custom or open source code or components and images of node structures or modules that AREA members can later use to replicate results from this study or, in the future, any new low-code or no-code AR content authoring tools.
  
- A webinar and executive summary for public audiences.